

Claims

What is claimed is:

- 5 1. A wet-wipe dispensing system comprising a wet-wipe container and at least one wet-wipe stored within the container, the wet-wipe being removable from the container for use,
- 10 the wet-wipe comprising a non-woven laminate of an elastic layer and at least one gathered layer, the gather layer being bonded to the elastic layer at at least two points and being gathered between the at least two points, the non-woven laminate having a first thickness within the container and a second thickness outside the container, the second thickness being greater than the first thickness.
- 15 2. The wet-wipe dispensing system according to claim 1, wherein the second thickness is about 18% thicker than the first thickness.
3. The wet-wipe dispensing system according to claim 1, wherein the second thickness is in the range of about 1.0 mm to about 1.7 mm.
- 20 4. The wet-wipe dispensing system according to claim 3, wherein the first thickness is less than 0.90 mm.
- 25 5. The wet-wipe dispensing system according to claim 1, wherein the at least one gathered layer includes a first gathered layer bonded to one surface of the elastic layer and a second gathered layer bonded to an opposite surface of the elastic layer such that the elastic layer is sandwiched between the first gathered layer and the second gathered layer.
- 30 6. The wet-wipe dispensing system according to claim 1, wherein the container includes a base and a lid enclosing an interior wherein the at least one

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wet-wipe is stored, the lid including an opening through which the at least one wet-wipe is removed from the interior of the container.

7. The wet-wipe dispensing system according to claim 6, wherein the at least one wet-wipe has a first position substantially within the interior of the container and a second position outside the container, the at least one wet-wipe having a first thickness in the first position and a second thickness in the second position, the second thickness being greater than the first thickness, and wherein the opening is formed of a yieldable and pass through resistive material which yieldably and resistively allows the at least one wet-wipe to move from the first position to the second position.

8. The wet-wipe dispensing system according to claim 7, wherein the opening yieldably resists the at least one wet-wipe transitioning from the first position to the second position, and the elastic layer having a relaxed state with the wet-wipe in the first and second positions and a stretched state as the opening yieldably resists the wet-wipe transitioning to the second position.

9. The wet-wipe dispensing system according to claim 8, wherein the elastic layer has a stretched length of about 271 mm in the stretched position, and relaxed length of about 190 mm in the relaxed state.

10. The wet-wipe dispensing system according to claim 8, wherein the elastic layer includes a plurality of parallel elastic fibers extending in a first direction, and the at least one wet-wipe being stretched in the first direction when transitioning between the first and second positions.

11. The wet-wipe dispensing system according to claim 10, wherein the first direction is the machine direction.

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12. The wet-wipe dispensing system according to claim 6, wherein the base is a rigid tub.

5 13. The wet-wipe dispensing system according to claim 6, wherein the base is a flexible package.

10 14. The wet-wipe dispensing system according to claim 6, wherein the lid includes a flexible, rubber-like material, and the opening is formed in the flexible, rubber-like material.

15 15. The wet-wipe dispensing system according to claim 13, wherein the opening has a length of one inch or greater.

16. The wet-wipe dispensing system according to claim 13, wherein the opening includes a plurality of slits each of which crosses at least one other slit.

17. The wet-wipe dispensing system according to claim 13, wherein the flexible, rubber-like material has a Shore A hardness of about 100 or less.

20 18. The wet-wipe dispensing system according to claim 13, wherein the flexible, rubber-like material has Gurley stiffness of about 10,000 mgf or less.

25 19. The wet-wipe dispensing system according to claim 13, wherein the flexible, rubber-like material has a thickness of about 0.1 mm or greater.

20. The wet-wipe dispensing system according to claim 13, wherein the flexible, rubber-like material has an elasticity of 10 Mpa or less.

21. The wet-wipe dispensing system according to claim 1, wherein the at least one wet-wipe includes a plurality of wet-wipes, the plurality of wet-wipes being interleaved in a stored position within the container.

5 22. The wet-wipe according to claim 1, wherein the at least one wet-wipe includes a plurality of wet-wipes, the plurality of wet-wipes being non-interleaved in a stored position within the container.

10 23. The wet-wipe according to claim 1, wherein the at least one wet-wipe includes a plurality of wet-wipes, the plurality of wet-wipes being in a roll in a stored position within the container.

15 24. A method for increasing the thickness of a wet-wipe, the wet-wipe in a first mode having a relaxed length and a first thickness, comprising:  
stretching the wet-wipe in a second mode beyond its relaxed length to an extended length; and  
recovering the wet-wipe to a third mode causing the wet-wipe to have a second thickness greater than the first thickness, the length of the wet-wipe in the third mode being about the relaxed length.

20 25. The method according to claim 24, wherein stretching the wet-wipe includes stretching the wet-wipe in a machine direction.

25 26. The method according to claim 24, wherein recovering the wet-wipe in the third mode includes increasing the thickness of the wet-wipe by about 18%.

30 27. The method according to claim 24, wherein stretching the wet-wipe in the second mode includes removing the wet-wipe from a container through an opening which yieldably resists removal of the wet-wipe such that the wet-wipe is stretched during removal.

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28. The method according to claim 24, wherein stretching the wet-wipe in a second mode includes stretching an elastic layer and at least one gathered layer, and recovering the wet-wipe to the third mode includes increasing the thickness of the at least one gathered layer.

29. The method according to claim 24, wherein stretching the wet-wipe includes stretching the wet-wipe to a length about 30% greater than the length of the wet-wipe in the relaxed state.

30. A method for increasing the thickness of a non-woven composite elastic wet-wipe including at least one non-woven elastic layer and at least one non-woven gatherable layer, wherein the gatherable layer is bonded to the elastic layer at at least two points and is gathered between the at least two points, and wherein the elastic layer is a non-woven web, the wet-wipe in a first mode having a relaxed length and a first thickness, comprising:

stretching the wet-wipe in a second mode beyond the relaxed length to an extended length; and  
releasing the wet-wipe in a third mode from the extended length to about the relaxed length while causing the wet-wipe to have a second thickness that is greater than the first thickness.

31. A multi-mode wet-wipe, comprising:  
a first mode in which the wet-wipe has a relaxed length and a first thickness;  
a second mode in which the wet-wipe is stretched to a stretched length greater than the relaxed length; and  
a third mode in which the wet-wipe recovers to about the relaxed length and has a second thickness, the second thickness being greater than the first thickness.

32. The multi-mode wet-wipe according to claim 31, wherein the stretched length is less than or equal to about 30% greater than the relaxed length.

33. The multi-mode wet-wipe according to claim 31, wherein the second thickness is about 18% greater than the first thickness.

34. The multi-mode wet-wipe according to claim 31, wherein the stretched length is at least about 5% greater than the relaxed length.

35. The multi-mode wet-wipe according to claim 31, wherein the wet-wipe in the third mode has a density less than the wet-wipe in the first mode.

36. A non-woven composite elastic wet-wipe, comprising:  
at least one non-woven elastic layer;  
at least one non-woven gatherable layer, wherein the gatherable layer is bonded to the elastic layer at at least two points and is gathered between the two points to form a composite elastic material;  
a first mode in which the wet-wipe has a relaxed length and a first thickness;  
a second mode in which the wet-wipe is stretched to a stretched length greater than the relaxed length; and  
a third mode in which the wet-wipe is recovered to about the relaxed length and has a second thickness, the second thickness being greater than the first thickness.

37. The wet-wipe according to claim 36, wherein the composite elastic material has a density less than about 0.085 g per cubic cm and has a CD tensile strength of greater than about 0.68 pounds.

38. The wet-wipe according to claim 36, wherein the composite elastic material includes a liquid distributed within the layers.

39. The wet-wipe according to claim 38, wherein the liquid comprises at least one material selected from the group of materials including preservatives, fragrances, emollients, humectants, detergents and soaps.

40. The wet-wipe according to claim 36, wherein the composite elastic material has a cup crush less than about 120 g per cm and a CD tensile strength of greater than about 0.68 pounds.

41. The wet-wipe according to claim 36, wherein the composite elastic material has a cup crush to density ratio of less than about 1300 cm<sup>2</sup> and greater than about 1100 cm<sup>2</sup>.

42. The wet-wipe according to claim 36, wherein the elastic layer has elastic fibers arranged in a substantially parallel configuration.

43. The wet-wipe according to claim 36, wherein the composite elastic material has a cup crush less than about 70 g-cm.

44. The wet-wipe according to claim 36, wherein the gatherable layer is non-elastic.

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